

CONTENTS

Volume 46 Number 1

METHODOLOGICAL ISSUES IN RESEARCHING CSCL

- | | | |
|--------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------|
| M. Valcke and R. Martens | 1 | The problem arena of researching computer supported collaborative learning: Introduction to the special section |
| B. De Wever, T. Schellens, M. Valcke and H. Van Keer | 6 | Content analysis schemes to analyze transcripts of online asynchronous discussion groups: A review |
| J.-W. Strijbos, R.L. Martens, F.J. Prins and W.M.G. Jochems | 29 | Content analysis: What are they talking about? |
| S. Schrire | 49 | Knowledge building in asynchronous discussion groups: Going beyond quantitative analysis |
| A. Weinberger and F. Fischer | 71 | A framework to analyze argumentative knowledge construction in computer-supported collaborative learning |
| S. Naidu and S. Järvelä | 96 | Analyzing CMC content for what? |

Volume 46 Number 2

- | | | |
|--------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------|
| W.-Y. Hwang, N.-S. Chen and R.-L. Hsu | 105 | Development and evaluation of multimedia white-board system for improving mathematical problem solving |
| G.-J. Hwang, B.M.T. Lin and T.-L. Lin | 122 | An effective approach for test-sheet composition with large-scale item banks |
| K.-E. Chang, Y.-T. Sung and S.-F. Lin | 140 | Computer-assisted learning for mathematical problem solving |
| C. Bravo, M.Á. Redondo, M. Ortega and M.F. Verdejo | 152 | Collaborative environments for the learning of design: a model and a case study in Domotics |
| J.L. Margolis, M. Nussbaum, P. Rodriguez and R. Rosas | 174 | Methodology for evaluating a novel education technology: a case study of handheld video games in Chile |
| S. Çepni, E. Taş and S. Köse | 192 | The effects of computer-assisted material on students' cognitive levels, misconceptions and attitudes towards science |

E. Yechiam

- 206 Why are macros not used? A brief review and an approach for improving training

Volume 46 Number 3

VIRTUAL LEARNING?

Selected Contributions from the CAL 05 Symposium

- | | | |
|----------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------|
| J. Underwood and A. McFarlane | 221 | CAL'05: Virtual learning? |
| D.W. Shaffer | 223 | Epistemic frames for epistemic games |
| G. Sim, S. MacFarlane and J. Read | 235 | All work and no play: Measuring fun, usability, and learning in software for children |
| S. de Freitas and M. Oliver | 249 | How can exploratory learning with games and simulations within the curriculum be most effectively evaluated? |
| S. Kennewell and A. Morgan | 265 | Factors influencing learning through play in ICT settings |
| C. Markett, I.A. Sánchez, S. Weber and B. Tangney | 280 | Using short message service to encourage interactivity in the classroom |
| B. Patten, I.A. Sánchez and B. Tangney | 294 | Designing collaborative, constructionist and contextual applications for handheld devices |
| K. Turvey | 309 | Towards deeper learning through creativity within online communities in primary education |
| R. Holliman and E. Scanlon | 322 | Investigating cooperation and collaboration in near synchronous computer mediated conferences |
| V. Armstrong and S. Curran | 336 | Developing a collaborative model of research using digital video |

Volume 46 Number 4

- | | | |
|----------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------|
| T. Schellens and M. Valcke | 349 | Fostering knowledge construction in university students through asynchronous discussion groups |
| R.A. Ellis | 371 | Investigating the quality of student approaches to using technology in experiences of learning through writing |
| L.M.Y. Chan, A.C. Jones, E. Scanlon and R. Joiner | 391 | The use of ICT to support the development of practical music skills through acquiring keyboard skills: a classroom based study |

A. Magnan and J. Ecalle	407	Audio-visual training in children with reading disabilities
S. Schworm and A. Renkl	426	Computer-supported example-based learning: When instructional explanations reduce self-explanations
N. Kock, R. Aiken and C. Sandas	446	Isolated versus integrated case studies: A comparison in the context of teaching complex and domain-specific IT applications
H.-C. Wang and C.-W. Hsu	458	Teaching-Material Design Center: An ontology-based system for customizing reusable e-materials

Volume 47 Number 1

T.-Y. Wang, H.-C. Huang and H.-S. Huang	1	Design and implementation of cancellation tasks for visual search strategies and visual attention in school children
W. Tsou, W. Wang and Y. Tzeng	17	Applying a multimedia storytelling website in foreign language learning
E. Hassini	29	Student-instructor communication: The role of email
B.H. Ngu and S. Rethinasamy	41	Evaluating a CALL software on the learning of English prepositions
J. Pearson	56	Investigating ICT using problem-based learning in face-to-face and online learning environments
N.A. Beacham and J.L. Alty	74	An investigation into the effects that digital media can have on the learning outcomes of individuals who have dyslexia
T. Lainema and S. Nurmi	94	Applying an authentic, dynamic learning environment in real world business
J.M. Apperson, E.L. Laws and J.A. Scepansky	116	The impact of presentation graphics on students' experience in the classroom

Volume 47 Number 2

P.M. Alexander	127	Virtual teamwork in very large undergraduate classes
S. Xinogalos, M. Satratzemi and V. Dagdilelis	148	An introduction to object-oriented programming with a didactic microworld: <i>objectKarel</i>

A. Karoulis, S. Demetriadis and A. Pombortsis	172	Comparison of expert-based and empirical evaluation methodologies in the case of a CBL environment: the "Orestis" experience
S. Parsons, A. Leonard and P. Mitchell	186	Virtual environments for social skills training: comments from two adolescents with autistic spectrum disorder
J. Corredor	207	General and domain-specific influence of prior knowledge on setting of goals and content use in museum websites
K.A. Pituch and Y.-k. Lee	222	The influence of system characteristics on e-learning use

Volume 47 Number 3

H. Vacik, B. Wolfslehner, J. Spörk and E. Kortschak	245	The use of COCOON in teaching silviculture
M. Telem and S. Pinto	260	Information technology's impact on school-parents and parents-student interrelations: a case study
G. Faraco, P. Pantano and R. Servidio	280	The use of Cellular Automata in the learning of emergence
B. Ertl, F. Fischer and H. Mandl	298	Conceptual and socio-cognitive support for collaborative learning in videoconferencing environments
A. Kirkwood	316	Going outside the box: skills development, cultural change and the use of on-line resources
S. Puntambekar	332	Analyzing collaborative interactions: divergence, shared understanding and construction of knowledge
E. Smith and H.J. Oosthuizen	352	Attitudes of entry-level University students towards computers: a comparative study

Volume 47 Number 4

A. Albirini	373	Teachers' attitudes toward information and communication technologies: the case of Syrian EFL teachers
B. Susser and T. Ariga	399	Teaching e-commerce Web page evaluation and design: a pilot study using tourism destination sites
Y.-H. Tao, S.-M. Guo and Y.-H. Lu	414	The design and the formative evaluation of a web-based course for simulation analysis experiences

P. Häkkinen and S. Järvelä	433	Sharing and constructing perspectives in web-based conferencing
M.M. Reis, E.P. Paladini, S. Khator and W.A. Sommer	448	Artificial intelligence approach to support statistical quality control teaching
G. Lowerison, J. Sclater, R.F. Schmid and P.C. Abrami	465	Student perceived effectiveness of computer technology use in post-secondary classrooms